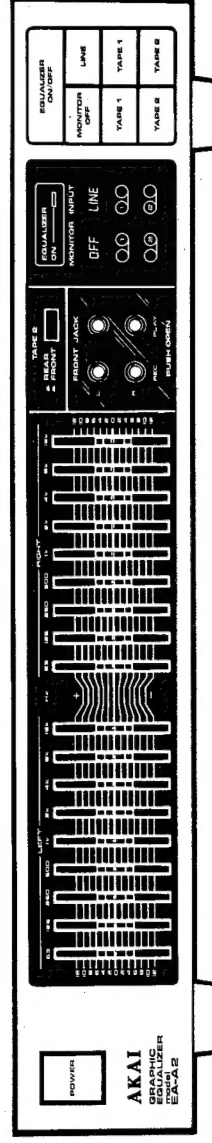


AKAI SERVICE MANUAL



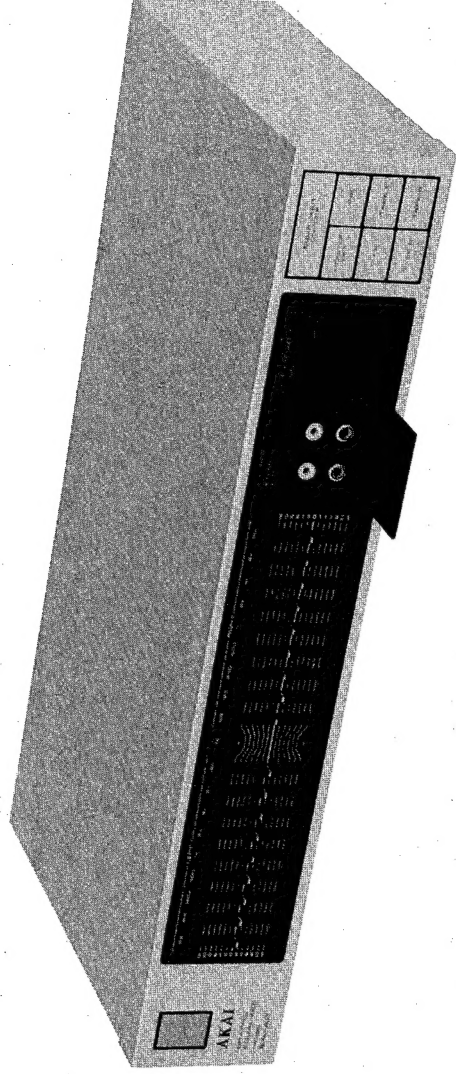
STEREO GRAPHIC EQUALIZER

MODEL **EA-A2**

ABBREVIATIONS FOR SERVICE MANUAL

MODEL EA-A2

ABBREVIATION	EXPLANATION
AC	Alternating Current
EQ	Equalizer
RST	ReSeT
SW	SWitch
VOL	VOLume



STEREO GRAPHIC EQUALIZER

MODEL **EA-A2**

SECTION 1	SERVICE MANUAL	3
SECTION 2	PARTS LIST	9

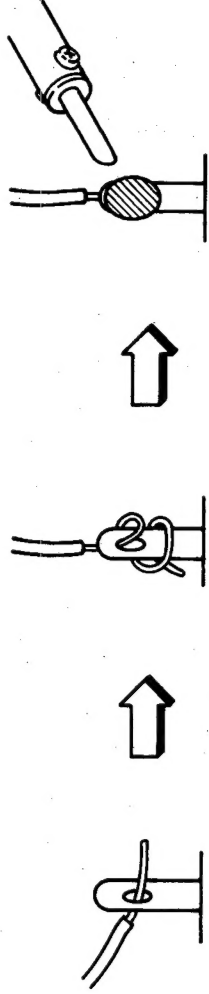
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks, line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

1. Parts identified by the Δ symbol parts are critical for safety.
Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers (Insulating Barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.

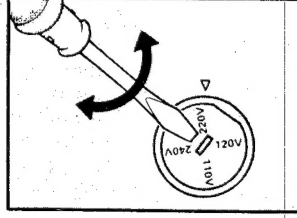


6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

VOLTAGE CONVERSION

Each machine is preset at the factory according to its destination, but some machines can be set to 110V, 120V, 220V or 240V as required, if your machine's voltage can be converted:

Before connecting the power cord, turn the VOLTAGE SELECTOR located on the rear panel with a screwdriver until the correct voltage is indicated. Models for USA, Canada, Europe, UK and Australia are not equipped with this facility.



SECTION 1

SERVICE MANUAL

TABLE OF CONTENTS

I. SPECIFICATIONS	4
II. DISMANTLING OF UNIT	5
III. CONTROLS	6
IV. PRINCIPAL PARTS LOCATION	7
V. ADJUSTMENT	8
VI. PC BOARD TITLES AND NUMBERS	8

For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

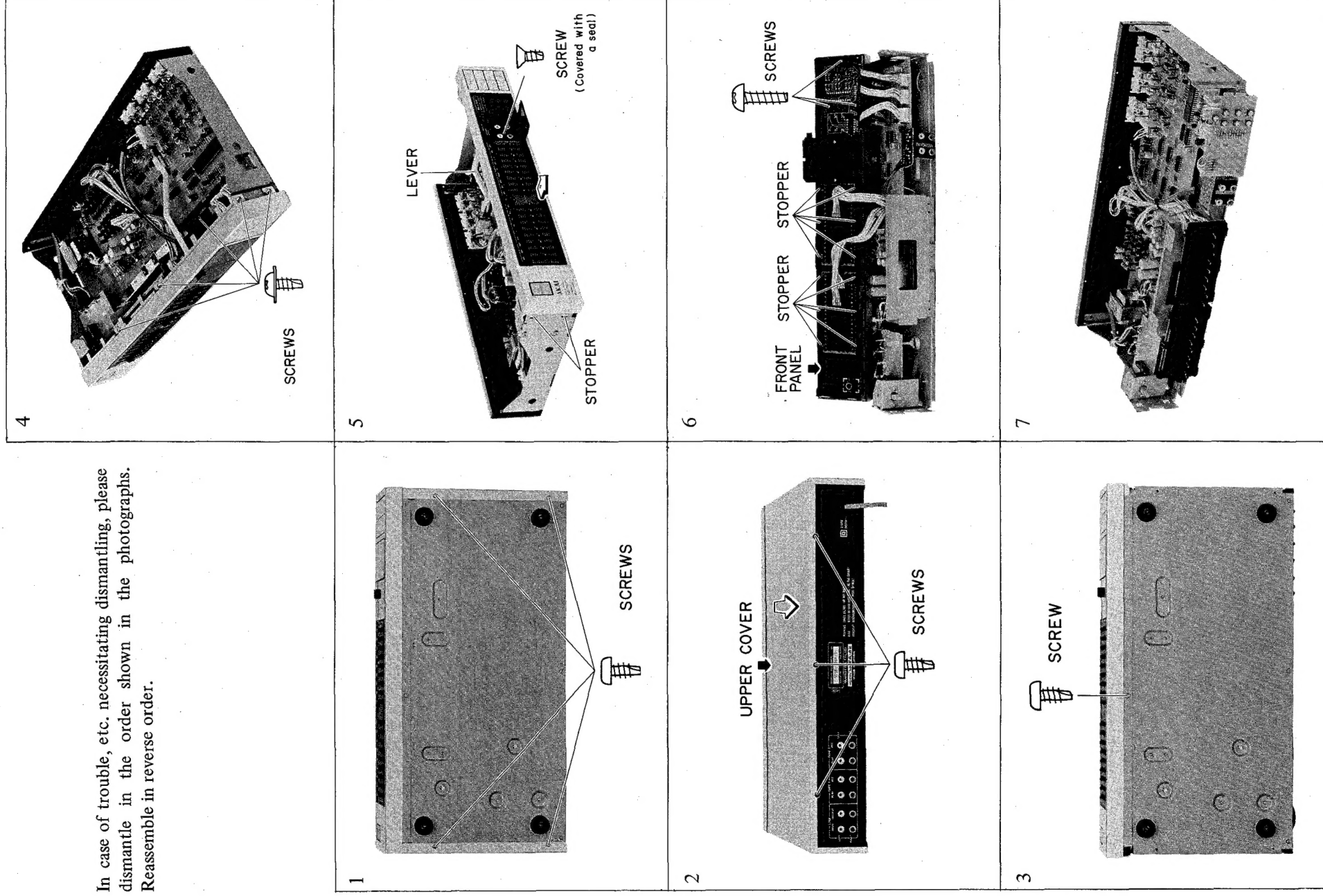
I . SPECIFICATIONS

CENTER FREQUENCY	63Hz/125Hz/250Hz/500Hz/1kHz/2kHz/4kHz/8kHz/16kHz
CONTROL RANGE	±12dB
INPUT SENSITIVITY/IMPEDANCE (LINE)	150mV/47kohms
OUTPUT IMPEDANCE	500 ohms
S/N (IHF-A)	95dB
GAIN (Flat Position)	0dB
DISTORTION	0.03% (20Hz to 20kHz)
POWER REQUIREMENTS	120V, 60Hz for USA and Canada 220V, 50Hz for Europe except UK 240V, 50Hz for UK and Australia 110V/120V/220V/240V/50/60Hz switachable for other countries
DIMENSIONS	440 (W) × 70 (H) × 255 (D) mm (17.3 × 2.8 × 10.0 inches)
WEIGHT	2.8kg (6.2 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.



III. CONTROLS

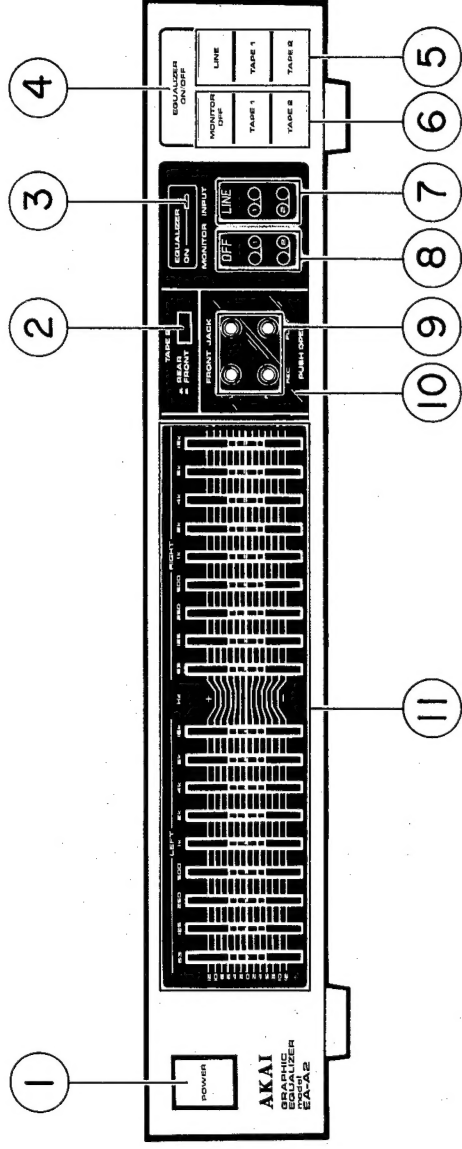


Fig. 3-1 Front View

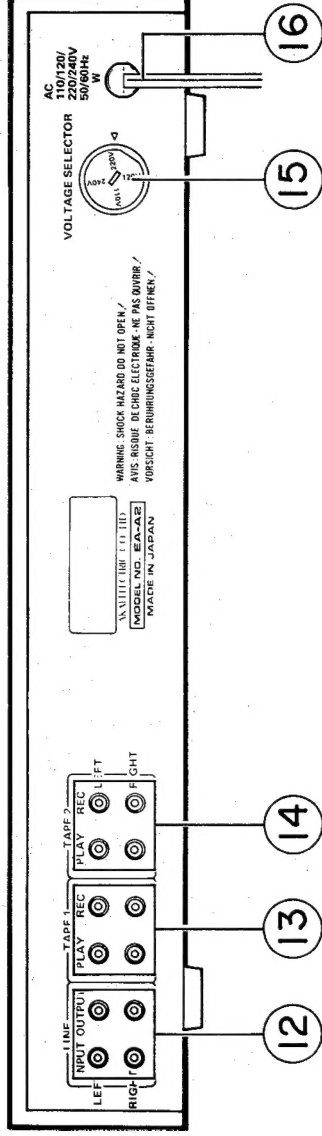


Fig. 3-2 Rear View

- | | |
|---|---|
| 1. POWER SWITCH | 9. TAPES 2 (PLAY/REC) FRONT JACKS |
| 2. TAPES 2 JACK SELECTOR SWITCH (FRONT/REAR) | 10. RETRACTABLE JACK COVER |
| 3. EQUALIZER ON/OFF INDICATOR | 11. LEFT AND RIGHT FREQUENCY LEVEL CONTROL LEVERS |
| 4. INPUT SELECTOR (LINE, TAPES 1, TAPES 2) BUTTONS | 12. LINE (IN/OUT) JACKS |
| 5. TAPES MONITOR SELECTOR (MONITOR OFF, TAPES 1, TAPES 2) BUTTONS | 13. TAPES 1 (PLAY/REC) JACKS |
| 6. INPUT SOURCE INDICATORS | 14. TAPES 2 (PLAY/REC) REAR JACKS |
| | 15. VOLTAGE SELECTOR (U ONLY) |
| | 16. POWER CORD |

IV. PRINCIPAL PARTS LOCATION

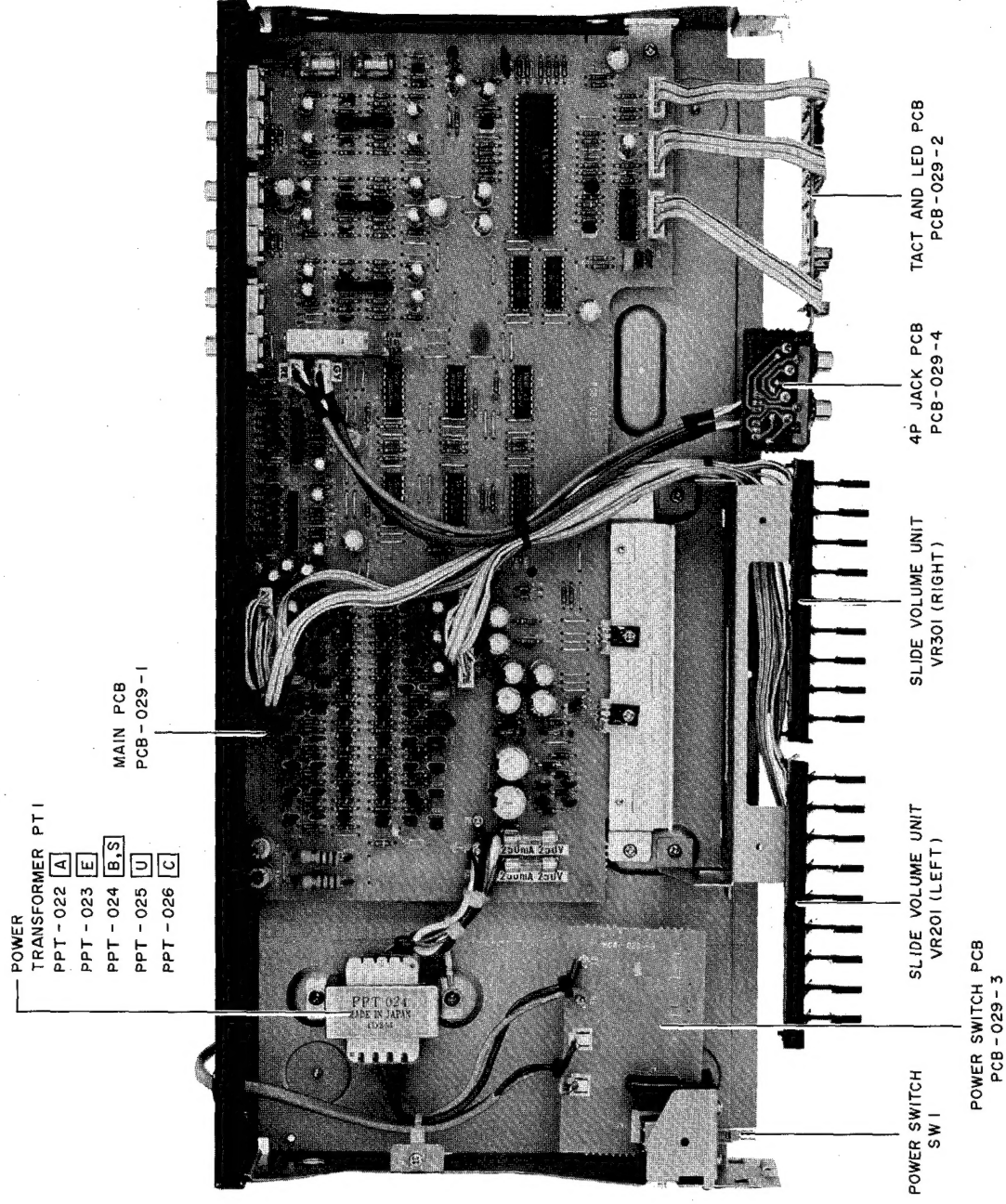


Fig. 4-1 Top View

V. ADJUSTMENT

No adjustment is necessary.

VI. PC BOARD TITLES AND NUMBERS

PC BOARD TITLE		PC BOARD NUMBER
MAIN	PC BOARD	PCB-029-1
TACT AND LED	PC BOARD	PCB-029-2
POWER SW	PC BOARD	PCB-029-3
4P JACK	PC BOARD	PCB-029-4

SECTION 2

PARTS LIST

TABLE OF CONTENTS

RECOMMENDED SPARE PARTS	11
1. PC BOARD BLOCK	11
2. MAIN PC BOARD.....	11
3. TACT AND LED PC BOARD.....	11
4. POWER SW PC BOARD	11
5. FINAL ASSEMBLY BLOCK	13
INDEX	14

Resistor and Capacitor which is not listed in this parts list, please refer to
COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no., model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Parts List may be partially changed, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows the parts that are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts". Select and order such parts from the "Common List for Service Parts".
2. The Recommended Spare Parts shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not be supplied in principle.
4. How to read list
 - a) Mechanism Block
 - b) P.C Board Block

2. HEAD BASE BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PRA-8FU C
2-3	ZS-477876	PAN20X03STL CMT
2-4	ZS-536488	BID20X08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING
	SP (Service Parts) Classification	
	A small "x" indicates the inability to show that particular part in the Photo or Illustration.	
	This number corresponds with the individual parts index number in that figure	
	This number corresponds with the Figure Number	

6. SYS. CON. P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EL-324536	IC HD14049BP
6-IC2	EL-336801	IC MB8841-564M
6-IC3	EL-331661	IC SN7405N
6-IC4	EL-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EL-318384	OSC X'TAL NC-18C
		3.579545MHZ
	SP (Service Parts) Classification	
	This reference numbers corresponds with symbol numbers of Schematic Diagrams.	

5. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List. It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.	PARTS NO.	DESCRIPTION
1	BT-713123	△ TRANS POWER PPT-022(A) (A)
2	BT-713126	△ TRANS POWER PPT-022(B,S) (B,S)
3	BT-713128	△ TRANS POWER PPT-022(C) (C)
4	BT-713124	△ TRANS POWER PPT-022(E,V) (E,V)
5	BT-713127	△ TRANS POWER PPT-022(U) (U)
6	ED-713113	D LED GL5HD27 RED
7	ED-713112	D LED GL5NG27 YLW
8	ED-712568	D SILICON H DSF10B
9	ED-344280	D SILICON H GMA-01-FY2 F05
10	ED-623182	D ZENER H RD11E B
11	ED-308860	D ZENER H RD16E B
12	ED-324458	D ZENER H RD5.1E B
13 N	EF-300575	△ FUSE EAWK T 250V 0.10A (U)
14 N	EF-322975	△ FUSE EAWK T 250V 0.16A (B)
15 N	EF-300586	△ FUSE EAWK T 250V 0.25A (E,V,B,S)
16	EF-906700	△ FUSE SS2 250V 0.10A (A,C)
17	EL-713109	IC BA 6250
18	EL-336761	IC LA 6458S
19	EL-349870	IC LC 6505C-650
20	EL-780152	IC MC14016B
21	EL-713110	IC 1R2C05
22	EL-780148	OSC CE KBR400B
23	EQ-712575	RELAY POWER G5A237P
24	ES-337902	△ SW PUSH SDDL1P 01-1
25	ES-780175	△ SW SELECTOR HWX-0103-01-430 (U)
26	ES-713111	SW PUSH SUL192A 2-04-02N
27	ES-336780	SW TACT KHH10902
28	ET-322778	TR 2SA608K-NP E,F,G
29	ET-322598	TR 2SB632K E,F
30	ET-245790	TR 2SC1570NP G,H
31	ET-403413	TR 2SC536NP H
32	ET-310148	TR 2SD612K E,F
33	EV-713141	VR SLIDE UNIT VJK303(9R)

"NOTE" N : New Parts

SYMBOL FOR DESTINATION

A : AAL (U.S.A.)
B : UK (England)
C : CSA (Canada)
E : CEE (Europe)
S : SAA (Australia)
U : U/T (Universal Area)
V : VDE (West Germany)

1. PC BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
----------	-----------	-------------

MAIN PC BOARD BLOCK

1-1A	BA-713142	PC MAIN BLK EA-A2 (A,C)
1-1E	BA-713143	PC MAIN BLK EA-A2 (E,V,S)
1-1B	BA-713144	PC MAIN BLK EA-A2 (B)
1-1U	BA-713145	PC MAIN BLK EA-A2 (U)

NOTE: MAIN PC BOARD BLOCK CONSISTS OF FOLLOWING PC BOARDS.

A : MAIN PC BOARD
B : TACT AND LED PC BOARD
C : POWER SW PC BOARD

2. MAIN PC BOARD

REF. NO.	PARTS NO.	DESCRIPTION
2-IC201 to 203	EL-336761	IC LA6458S
2-IC204 to 206	EL-780152	IC MC14016B
2-IC207 to 209	EL-336761	IC LA6458S
2-IC304 to 306	EL-780152	IC MC14016B
2-IC307 to 309	EL-336761	IC LA6458S
2-IC401 to 403	EL-349870	IC LC6505C-650
2-IC402 to 404	EL-713109	IC BA6250
2-Q101 to 209	EL-713110	IC 1R2C05
2-Q101 to 301	ET-310148	TR 2SD612K E,F
2-Q102 to 309	ET-322598	TR 2SB632K E,F
2-Q103 to 404	ET-403413	TR 2SC536NP H
2-Q104 to 209	ET-322778	TR 2SA608K-NP E,F,G
2-Q201 to 209	ET-245790	TR 2SC1570NP G,H
2-Q301 to 309	ET-245790	TR 2SC1570NP G,H
2-Q402 to 404	ET-403413	TR 2SC536NP H
2-D101 to 105	ED-712568	△ D SILICON H DSF10B
2-D106 to 107	ED-308860	△ D ZENER H RD16E B
2-D108 to 109	ED-623182	D ZENER H RD11E B
2-D110 to 2-D111	ED-324458	D ZENER H RD5.1E B
112 to 2-D113	ED-344280	D SILICON H GMA-01-FY2 F05
2-D401 to 403	ED-712568	D SILICON H DSF10B
2-X401 to 2-RE201	ED-344280	D SILICON H GMA-01-FY2 F05
301 to 2-S201	EQ-712575	RELAY POWER G5A237P
2-R107 to 108	ES-713111	SW PUSH SUL192A 2-04-02N
2-PJ201 to 203	ER-311874	△ R OMF H FS 2W 101J
2-F101 to 102	EJ-709341	PIN J AJC-035-AAAB 4P
	EF-300586	△ FUSE EAWK T 250V 0.25A (U,E,V,B,S)

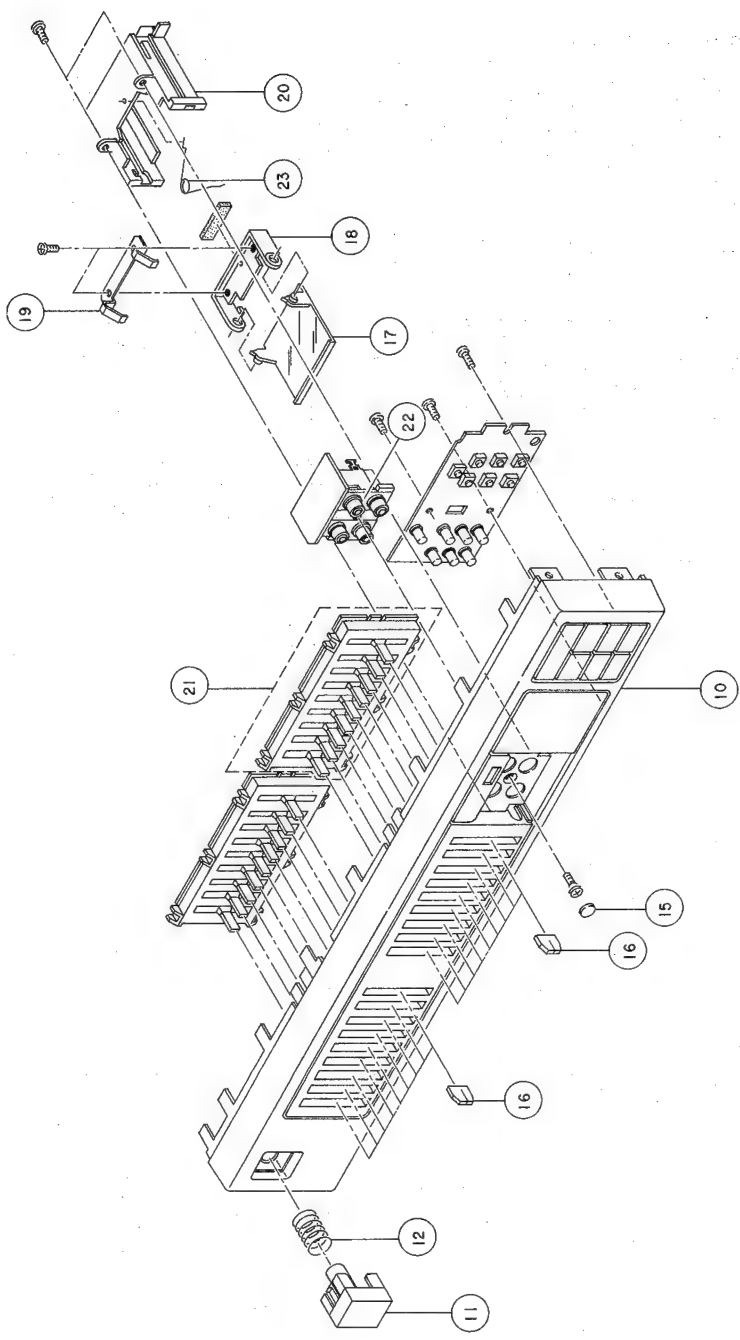
3. TACT AND LED PC BOARD

REF. NO.	PARTS NO.	DESCRIPTION
3-D405 to 410	ED-344280	D SILICON H GMA-01-FY2 F05
3-LED401 to 404	ED-713112	D LED GL5NG27 YLW
3-LED405 to 407	ED-713113	D LED GL5HD27 RED
3-S401 to 407	ES-336780	SW TACT KHH10902

4. POWER SW PC BOARD

4-SW1	ES-337902	△ SW PUSH SDDL1P 01-1
4-C1U	EC-256950	△ C MP V 103M 250AC (U,E,B,S,V)
4-C1A	EC-330308	△ C MMY V ECQUF 103M 250AC (C,A)
4-F1A	EF-306700	△ FUSE SS2 250V 0.10A (A,C)
4-F1U	EF-300575	△ FUSE EAWK T 250V 0.10A (U)
4-F1B	EF-322975	△ FUSE EAWK T 250V 0.16A (B)

FINAL ASSEMBLY BLOCK



5. FINAL ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
5-1S	SP-7113116	COVER UPPER EA-A2
5-1P	SP-7113117	COVER UPPER EA-A2-P
5-2A	SP-7113118	PANEL REAR EA-A2(A,C)
5-2U	SP-7113119	PANEL REAR EA-A2(U)
5-2E	SP-7113120	PANEL REAR EA-A2(E,V)
5-2B	SP-7113121	PANEL REAR EA-A2(B,S)
5-3	SP-7113122	RV NYL S3055 (U)
5-4	ES-780175	Δ SW SELECTOR HXW-0103-01-430 (U)
5-5A	BT-7113123	Δ TRANS POWER PPT-022(A) (A)
5-5E	BT-7113124	Δ TRANS POWER PPT-022(E,V) (E,V)
5-5B	BT-7113126	Δ TRANS POWER PPT-022(B,S) (B,S)
5-5U	BT-7113127	Δ TRANS POWER PPT-022(U) (U)
5-5C	BT-7113128	Δ TRANS POWER PPT-022(C) (C)
5-6A	EW-305691	Δ AC CORD 2 CORES KP-8, SPT-1 UC (A,C)
5-6E	EW-336923	Δ AC CORD 2 CORES KP-419C, LTCE-2F EV (E,V)
5-6S	EW-336924	Δ AC CORD 2 CORES KP-560, LTSA-2F S (S)
5-6U	EW-306428	Δ AC CORD 2 CORES KP-700A, VFF U/T (U)
5-6B	EW-347025	Δ AC COARD 2 CORES LTBS-2F B (B)
5-7U	EZ-631945	STRAIN RELIEF SR-4N-4 (U,C,A)
5-7E	EJ-692908	STRAIN RELIEF SR-5N-4 (E,V,B,S)

REF. NO.	PARTS NO.	DESCRIPTION
5-8	SA-710514	RUBBER FOOT EA-M7
5-9	MZ-7113129	SPACER SUPPORT
5-10S	BD-7113130	PANEL FRONT BLK EA-A2
5-10P	BD-7113131	PANEL FRONT BLK EA-A2-P
5-11S	SK-342820D	KNOB POWER (3)
5-11P	SK-342820C	KNOB POWER-P (2)
5-12	ZS-7113132	SP COIL
5-13	SK-351443C	KNOB PUSH (B)-2
5-14	SZ-7113133	SHAFT KNOB
5-15	SE-7113134	PLATE
5-16	SK-7113135	KNOB SLIDE
5-17	SP-7113137	DOOR
5-18	TA-7113138	SLIDE BAR
5-19	ZS-7113139	SP DOOR
5-20	SZ-7113140	SLIDE COVER
5-21	EV-7113141	VR SLIDE UNIT VJK303(9R) (VR201, 202)
5-22	EJ-7113115	PIN J AIC-035-AAB P 4P
5-23	ZG-7113377	SP TORSION

NOTE: SYMBOL FOR COLOR VARIATION

S : SILVER

P : PEARL SHADOW

INDEX

PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.	PARTS NO.	REF. NO.
BA-713142	1-1A	ES-713111	2-S201						
BA-713143	1-1E	ES-780175	5-4						
BA-713144	1-1B	ET-245790	2-Q201						
BA-713145	1-1U	ET-245790	2-Q202						
BD-713130	5-10S	ET-245790	2-Q203						
BD-713131	5-10P	ET-245790	2-Q204						
BT-713123	5-5A	ET-245790	2-Q205						
BT-713124	5-5E	ET-245790	2-Q206						
BT-713126	5-5B	ET-245790	2-Q207						
BT-713127	5-5U	ET-245790	2-Q208						
BT-713128	5-5C	ET-245790	2-Q209						
EC-256950	4-C1U	ET-245790	2-Q301						
EC-330308	4-C1A	ET-245790	2-Q302						
ED-308860	2-D106	ET-245790	2-Q303						
ED-308860	2-D107	ET-245790	2-Q304						
ED-324458	2-D110	ET-245790	2-Q305						
ED-344280	2-D402	ET-245790	2-Q306						
ED-344280	2-D403	ET-245790	2-Q307						
ED-344280	2-D111	ET-245790	2-Q308						
ED-344280	2-D112	ET-245790	2-Q309						
ED-344280	2-D401	ET-310148	2-Q101						
ED-344280	3-D405	ET-322598	2-Q102						
ED-344280	3-D406	ET-322778	2-Q104						
ED-344280	3-D407	ET-403413	2-Q103						
ED-344280	3-D408	ET-403413	2-Q402						
ED-344280	3-D409	ET-403413	2-Q403						
ED-344280	3-D410	ET-403413	2-Q404						
ED-623182	2-D108	EV-713141	5-21						
ED-623182	2-D109	EW-305691	5-6A						
ED-712568	2-D101	EW-306428	5-6U						
ED-712568	2-D102	EW-336923	5-6E						
ED-712568	2-D103	EW-336924	5-6S						
ED-712568	2-D104	EW-347025	5-6B						
ED-712568	2-D105	EZ-631945	5-7U						
ED-712568	2-D113	MZ-713129	5-9						
ED-713112	3-LED401	SA-710514	5-8						
ED-713112	3-LED402	SE-713134	5-15						
ED-713112	3-LED403	SK-342820C	5-11P						
ED-713112	3-LED404	SK-342820D	5-11S						
ED-713113	3-LED405	SK-351443C	5-13						
ED-713113	3-LED406	SK-713135	5-16						
ED-713113	3-LED407	SP-713116	5-IS						
EF-300575	4-F1U	SP-713117	5-1P						
EF-300586	2-F101	SP-713118	5-2A						
EF-300586	2-F102	SP-713119	5-2U						
EF-306700	4-F1A	SP-713120	5-2E						
EF-322975	4-F1B	SP-713121	5-2B						
EL-336761	2-IC201	SP-713122	5-3						
EL-336761	2-IC202	SP-713137	5-17						
EL-336761	2-IC203	SZ-713133	5-14						
EL-336761	1-IC207	SZ-713140	5-20						
EL-336761	2-IC307	TA-713138	5-18						
EL-349870	2-IC401	ZG-713377	5-23						
EL-713109	2-IC402	ZS-713132	5-12						
EL-713110	2-IC403	ZS-713139	5-19						
EL-713110	2-IC404								
EL-780148	2-X401								
EL-780152	2-IC204								
EL-780152	2-IC205								
EL-780152	2-IC206								
EL-780152	2-IC304								
EL-780152	2-IC305								
EL-780152	2-IC306								
EJ-692908	5-7E								
EJ-709341	2-PJ201								
EJ-709341	2-PJ202								
EJ-709341	2-PJ203								
EJ-713115	5-22								
EQ-712575	2-RE201								
EQ-712575	2-RE301								
ER-311874	2-R107								
ER-311874	2-R108								
ES-336780	3-S401								
ES-336780	3-S402								
ES-336780	3-S403								
ES-336780	3-S404								
ES-336780	3-S405								
ES-336780	3-S406								
ES-336780	3-S407								
ES-337902	4-SW1								

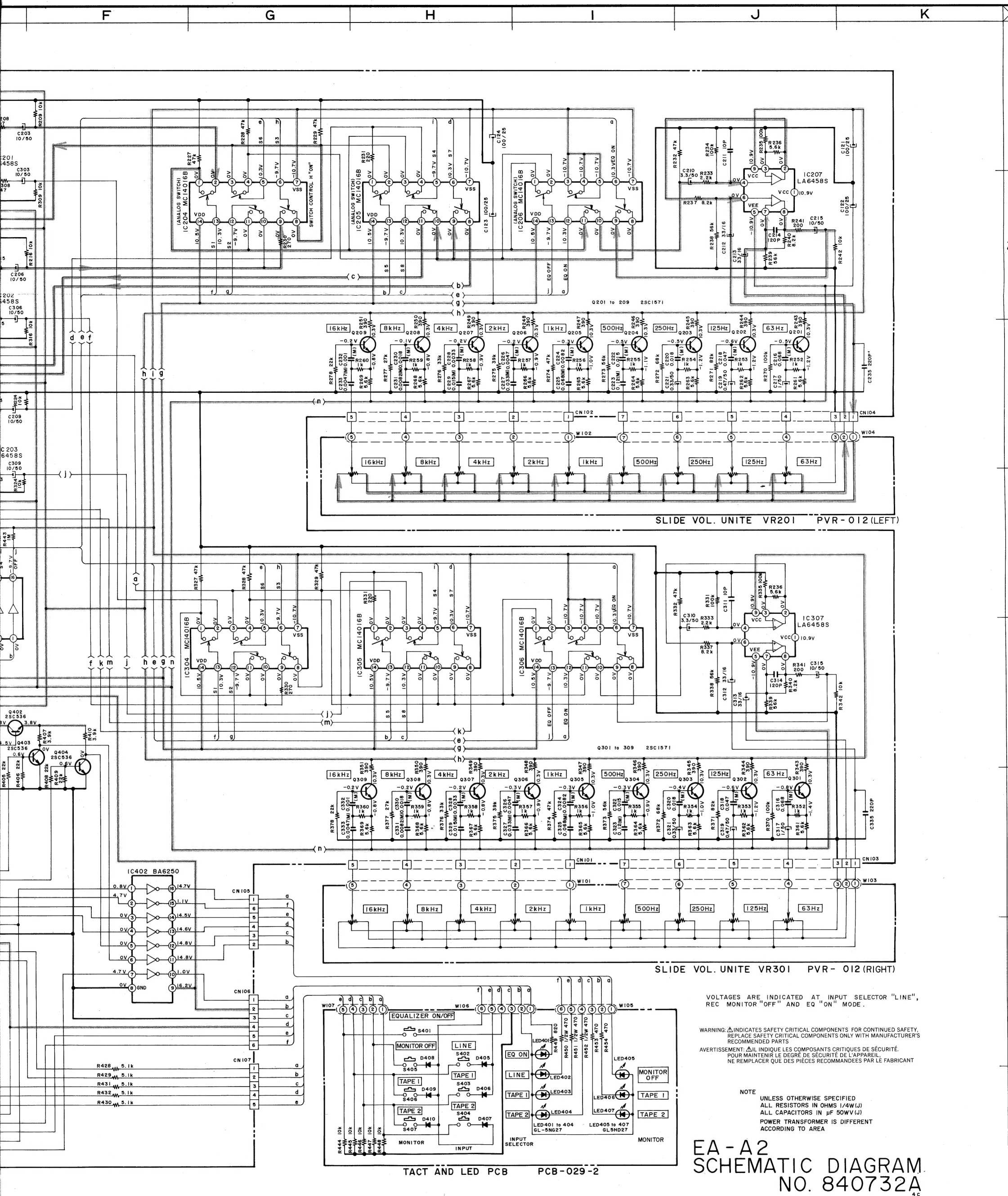
AKAI

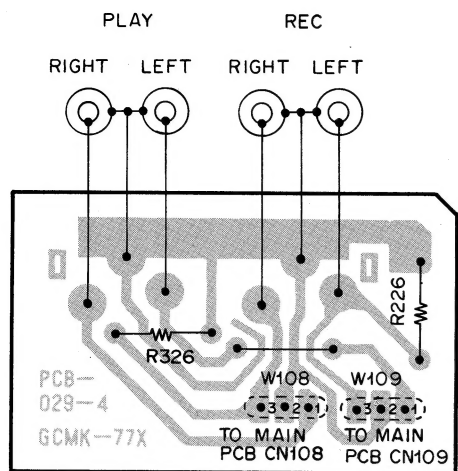
MODEL EA-A2

**PC BOARD
SCHEMATIC DIAGRAM**

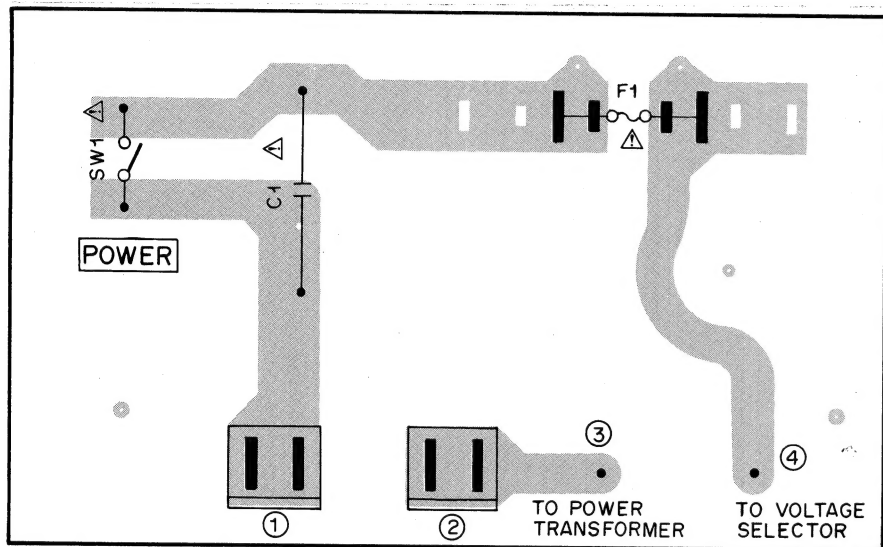
F

MAIN PCB PCB-029-1

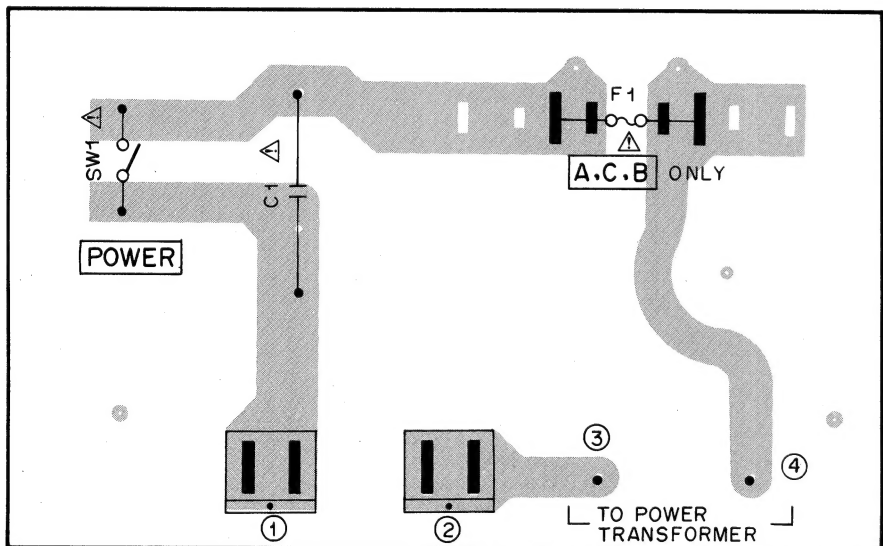




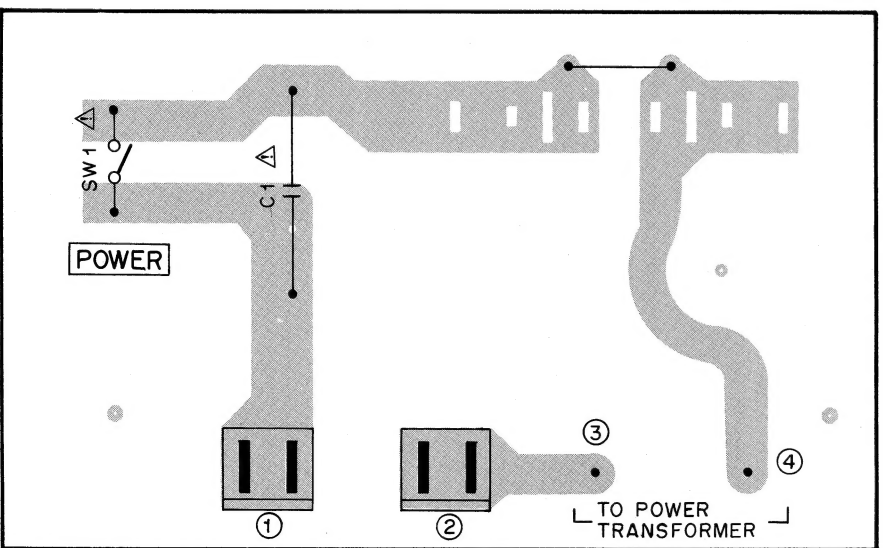
4P JACK PCB PCB-029-4



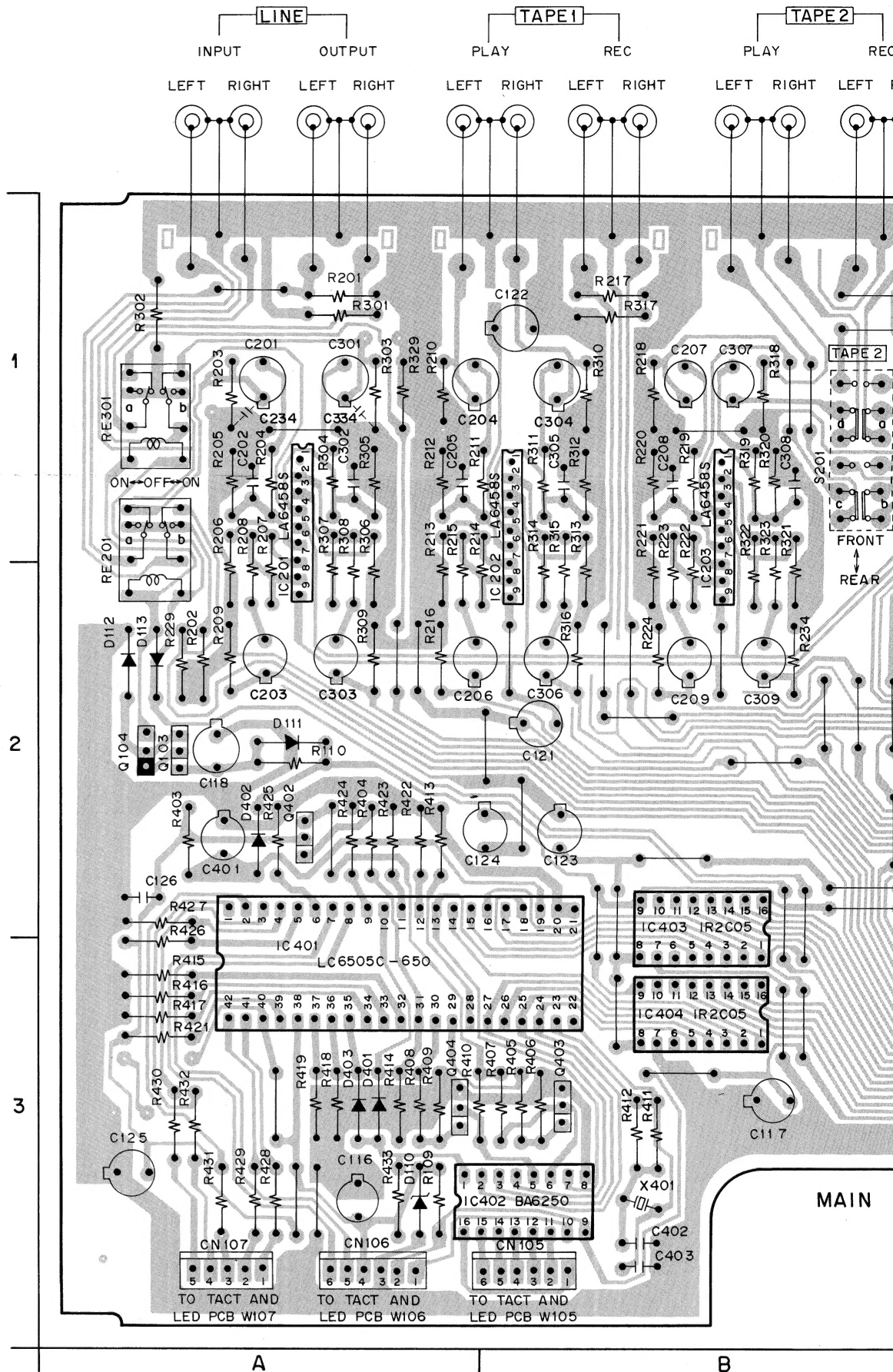
POWER SW PCB PCB-029-3 [U]

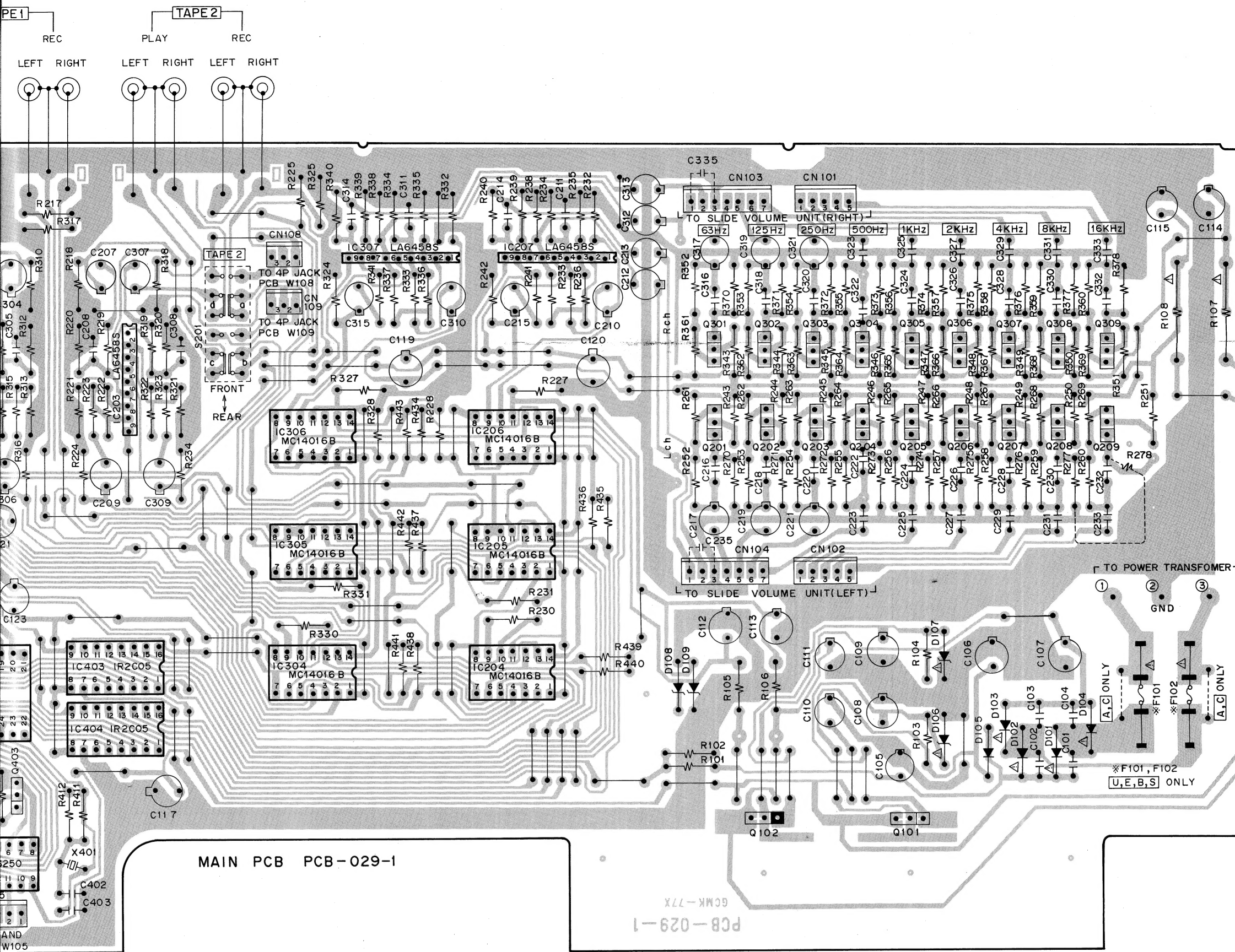


POWER SW PCB PCB-029-3 [C,A,B]



POWER SW PCB PCB-029-3 [E,S]

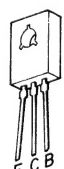




- Q101-----2SD612K (E,F)
 Q102-----2SB632K (E,F)
 Q103-----2SC536NP (D,E,F)
 Q104-----2SA608-SP (D,E,F)
 Q201 to 209---2SC1571NP (F,G,H)
 Q301 to 309---2SC1571NP (F,G,H)
 Q402 to 404---2SC536NP (D,E,F)



2SC536NP
2SC1571NP



2SB632K
2SD612K



2SA608-SP

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

INPUT

